



December 21, 2007

RECEIVED

DEC 26 2007

PUBLIC SERVICE
COMMISSION

Mr. Mike Burford
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

RE: Breathitt County Water District – "Certificate of Convenience and Necessity for Utility Construction" for the KY 15 South Watts Waterline Extension Project

Dear Mr. Burford:

As a result of your letter to John L. Smith dated December 20, 2007, in which you requested an estimated cost of operation after the proposed facilities are completed, I offer the following. I am providing you by overnight delivery ten (10) copies each of three different synopsizes calculating this estimated cost of operation.

The first attachment is a condensed version spreadsheet (ss) generated by Nesbitt Engineering, Inc. From this ss one can add the current average monthly expenses of \$12,000 and the proposed (estimated, based on expense/customer) monthly expenses of \$3,446 to arrive at a total of approximately \$15,500 per month.

The second attachment was completed by a third party, the Kentucky Infrastructure Authority (KIA) as part of their evaluation of the feasibility of the project for a KIA loan. At one point the District was considering funding from them. Notice that their annual payments are \$72,874, substantially greater than the District's proposed \$55,255 from the KADD loan. KIA determined that the project would cash flow at the higher amount of debt service. They indicated a Debt Coverage Ratio of 10.34 in 2008 and 1.64 in 2009.

A third calculation of the estimated operation, maintenance & replacement (OM&R) cost of the proposed system is presented on an attached sheet. There is a field counted approximately 232 homes in the proposed project area. The District has experienced two widely varying customer sign-up rates on prior projects from 30 % to 70 %. The hydraulic analysis was done based on 100 % sign-up to be conservative and to insure that it would function properly if in the future there were 232 homes connected. I estimate that for this project and this calculation there will be 70 % sign-ups resulting in approximately 163 connections. U.S. Census data indicates 2.61 people/household which results in 425 individuals. Using the conservative 100 gallons per person per day equals a total average day of 42,500 gallons. Based on this amount and a pump with a 130 gpm capacity, the pump would operate for 327 minutes (or ~ 5.5 hours) to supply this demand.

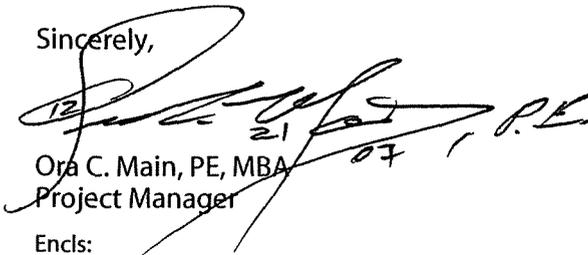
The power company serving the proposed pump station area is AEP. The resultant OM&R factor in \$/1000 gallons is less than the variable cost factor as determined in the District's existing rate. The calculated value of \$1.37/1000 gallons is approximately one third of the \$4.24/1000 gallons included in the District's current rates. Therefore the existing rates should provide ample funds to meet the projected OM&R costs of the proposed project.

I have placed my professional engineer's seal (signed and dated) on this letter and all attachments generated by Nesbitt Engineering, Inc. I hope this additional information permits you to approve this

project and issue a "Certificate of Convenience and Necessity for Construction". It is imperative to be able to move this project to the construction phase as bids were taken in August 2007.

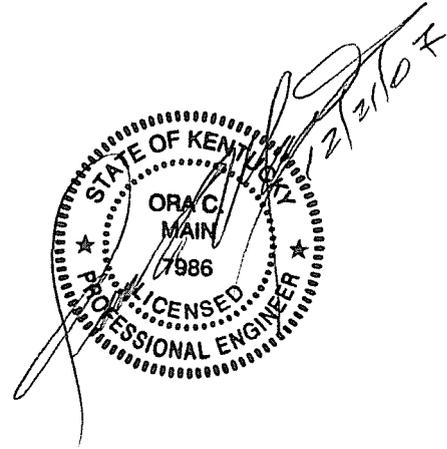
Thank you for all of your efforts and assistance on this project.

Sincerely,


12-21-07
Ora C. Main, PE, MBA
Project Manager

Encls:

- c: John L. Smith, Chairman BCWD
- Brendon Miller, Attorney for BCWD
- Bryan Kirby, CEDA
- Shannon Moore, BCWD



Breathitt County Water District

KY15 South Watts Waterline Project Preliminary Cash Flow Analysis

Based upon Low Bids of Ronnie Mullins & Sons & Laurel Construction Received 8/15/07
Breathitt County, Kentucky

Existing Conditions

Total Contract 1 & Contract 2 Bid Amounts = Total Construction Costs	\$	1,870,225
Total Opinion of Probable Project Cost	\$	2,294,000
Funding Sources		
CDBG Grant	\$	1,000,000.00
Interim Loan (KADD - two year Bond Anticipation Note @ 4.3%)	\$	1,260,000.00
Tap-on Fees	\$	34,000.00
Total of Possible Project Funding Sources	\$	2,294,000
Current Average Monthly Revenues (404 cust as of 12/5/07 x \$40/mo.)	\$	16,160
Current Average Monthly Expenses	\$	12,000
Current Monthly Balance Available for Debt Service	\$	4,160
Current Annual Balance Available for Debt Service	\$	49,920

New Conditions (Watts)

Customers = 232 x 50 % sign-up (116 conservative estimate)

Proposed new Monthly Revenue (232 x 0.50 x \$40/mo)	\$	4,640
Proposed new Monthly Expenses (\$12,000/404) x (232 x 0.50)	\$	3,446
Proposed Monthly Balance Available for Debt Service	\$	1,194
Proposed Annual Balance Available for Debt Service	\$	14,333
Current Annual Balance Available for Debt Service	\$	49,920
Total Current & Proposed Balance Available for Debt Service	\$	64,253
Total New KADD Debt Service Annual Amount Required	\$	55,255
Coverage of new debt service with 50 % customer sign-up on Watts	\$	8,998



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227 North Upper Street
Lexington, KY 40507-1016

12/21/07

STATE OF KENTUCKY
ORA C. MAIN
7988
LICENSED PROFESSIONAL ENGINEER

EXECUTIVE SUMMARY		Reviewer: Chris Whitaker	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date: November 1, 2007	
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number: F07-07	
REVOLVING LOAN FUND		WRIS Number: WX21025005	
BORROWER:	BREATHITT COUNTY WATER DISTRICT		
	Breathitt County		
BRIEF DESCRIPTION:	The Breathitt County Water District is requesting a Fund F loan in the amount of \$1,261,000 to extend water service to 232 residential customers along Highway 15 South to the Ned and Watts areas located in southern Breathitt County. The line extension will assist unserved residents who have been plagued by intestinal disorders caused by contaminated water sources. The District is applying for additional funds from the Kentucky Community Development Block Grant program, which will provide not only the additional funds needed for construction activities, but will also install free water meters and free service lines to income-eligible households.		
PROJECT FINANCING:		PROJECT BUDGET	
Fund F Loan	\$ 1,261,000	Administrative Expenses	\$ 40,000
CDBG Grant	\$ 1,000,000	Legal Expenses	5,000
Local Funds	\$ 34,000	Land & Easements	10,000
TOTAL	2,295,000	Engineering Fees	256,700
		Construction	1,803,000
		Contingency	180,300
		TOTAL	2,295,000
REPAYMENT		Est. Annual	
	Rate	1.00%	Payment \$72,874
	Term	20 years	1st Payment 6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Nesbitt Engineering, Inc.	
	Bond Counsel	Peck, Shafer, & Williams	
PROJECT SCHEDULE	Bid Opening:	August 2007	
	Construction Start:	November 2007	
	Construction Stop:	August 2008	
DEBT PER CUSTOMER	Existing:	\$ -	
	Proposed:	\$ 1,722.68	
OTHER DEBT	See Attached		
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached		
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>
	Current	500	\$39.80 (for 4,000 gallons)
	Additional Proposed	232	\$39.80 (for 4,000 gallons)
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.		
CASHFLOW	Cash Available for	Income after Debt	
	Debt Service	Debt Service	Service Coverage Ratio
Audited 2004	-13,302	0	-13,302 N/A
Audited 2005	634,837	0	634,837 N/A
Audited 2006	3,375,803	0	3,375,803 N/A
Projected 2007	42,100	0	42,100 N/A
Projected 2008	130,331	12,610	117,721 10.34
Projected 2009	119,853	72,874	46,978 1.64

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER REVOLVING LOAN FUND (FUND "F")
BREATHITT COUNTY WATER DISTRICT, BREATHITT COUNTY
PROJECT REVIEW
WX21025005**

I. PROJECT DESCRIPTION

The Breathitt County Water District is requesting a Fund F loan in the amount of \$1,261,000 to extend water service to 232 residential customers along Highway 15 South to the Ned and Watts areas located in southern Breathitt County. The line extension will assist unserved residents who have been plagued by intestinal disorders caused by contaminated water sources. The District is applying for additional funds from the Kentucky Community Development Block Grant program, which will provide not only the additional funds needed for construction activities, but will also install free water meters and free service lines to income-eligible households.

II. PROJECT BUDGET

Administrative Expenses	\$	40,000
Legal Expenses		5,000
Land & Easements		10,000
Engineering Fees		256,700
Construction		1,803,000
Contingency		180,300
TOTAL		2,295,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund F Loan	1,261,000	55%
CDBG Grant	1,000,000	44%
Local Funds	34,000	1%
Total	2,295,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$	1,261,000
Interest Rate		1.00%
Loan Term (Years)		20
Estimated Annual Debt Service	\$	69,722
Administrative Fee (0.25%)		3,152
Total Estimated Annual Debt Service	\$	72,874

V. PROJECT SCHEDULE

Bid Opening:	August 2007
Construction Start:	November 2007
Construction Stop:	August 2008

VI. RATE STRUCTURE

Customers

	Current	Proposed	Total
Residential	500	232	732
Commercial	0	0	0
Industrial	0	0	0
	<hr/>	<hr/>	<hr/>
	500	232	732

Rates

The monthly charge for water utility service is:

Effective Date	10/15/2003
First 2,000 gallons (min. bill)	\$19.90
Each 1,000 gallons thereafter	\$9.95
Residential Bill for 4,000 gallons	\$39.80

VII. DEMOGRAPHICS

The Breathitt County Water District (BCWD) serves the areas of Breathitt County unserved by the City of Jackson. BCWD purchases wholesale water from the City of Jackson at a rate of \$1.90 per 1,000 gallons for the first 2,500,000 gallons and \$3.80 per 1,000 gallons for the monthly volume over 2,500,000 gallons. Breathitt County has a population of 16,100. In 2000, the County's Median Household Income (MHI) level was \$19,155. The median household income for the Commonwealth is \$33,672. Based on median household income, the project will qualify for the 1% interest rate.

VIII. FINANCIAL ANALYSIS (See Exhibit 1)

Financial information for the utility was obtained from audited financial statements for the years ended December 31, 2005 and 2006. A Public Service Commission Annual Report was consulted for the year ended December 31, 2004.

HISTORICAL

Breathitt County Water District (BCWD) was organized in August 2003 to provide potable water to the residents of Breathitt County who were not served by the City of Jackson. As such, they have experienced a tremendous amount of growth in customer base from 25 customers at the end of 2004 to an expected customer base of 500 by the end of 2007. Due to the short history of the district, revenues and expenses have risen significantly, allowing BCWD to maintain adequate cash flows. The balance sheet shows that the district has established adequate liquidity. The percent of water revenues in receivables indicate acceptable collections. BCWD currently has no outstanding debt. The balance sheet for the District is strong enough to support the new debt.

PROJECTED

Projections are based on the following assumptions:

- Charges for services in 2007 and 2008 are projected to increase by the number of additional customers (2006 estimated average bill of \$38.74), projected to be 389 for a total of 500 by the end of 2007.
- Charges for services in 2009 reflect an increase of 232 customers for the project being proposed.
- Purchased water in 2007, 2008, & 2009 reflects an increase using the same number of customer additions as Charges for services (4,600 gallons per customer per month).
- O & M expenses for 2007 through 2009 are based on a conservative increase of 15% and the additional O & M costs of operating the new proposed project.
- The replacement reserve is \$3,000 annually for this project.
- Debt service on the new KIA loan will be \$72,874 annually beginning in 2009.

Based on the above assumptions, the Breathitt County Water District will meet the required cashflow through the projected years. A debt coverage ratio of 1.64 is projected by the water system in 2009 when the first full year of debt service payments of \$72,874 will be due.

REPLACEMENT RESERVE

Based on the information provided in the application the annual replacement cost is \$3,000. This amount should be added to the replacement account each December 1 until the balance reaches \$30,000 and maintained for the life of the loan.

IX. DEBT OBLIGATIONS

No current outstanding debt.

X. OTHER STATE OF FEDERAL FUNDING IN PAST FIVE YEARS

WRIS	Project Title	Type	Amount
WX21025001	KY30-Turner School Water	ACDF, ASCC	\$3,400,000
WX21025001	KY52/541 & Town Hill	HB267, CDBG	\$4,000,000
WX21025005	Hwy. 205 Water Extension	HB380	\$3,000,000

XI. CONTACTS

John L. Smith, Chairman
Breathitt County Water District
1137 Main Street
Jackson, Kentucky 41339

Bryan Kirby, Project Adm.
Community & Economic Devel.
P.O. Box 855
Richmond, Kentucky 40476

Sandra Dunahoo
Nesbitt Engineering, Inc.
227 North Upper Street
Lexington, Kentucky 40507

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan.

**EXHIBIT 1
BREATHITT COUNTY WATER DISTRICT
CASHFLOW ANALYSIS**

	PSC	%	2005	Change	%	2006	2007	2008	2009
	Audited		Audited	%		Projected	Projected	Projected	Projected
Operating Revenues	1,179	2372%	29,144	77%	51,597	133,847	268,391	340,292	56,291
Charges for Services	0		14,200	161%	37,012	42,564	48,948	52,914	56,291
Miscellaneous	1,179		15,944		14,585	90,283	119,443	187,378	103,977
Total Revenues	1,179	3576%	43,344	104%	88,609	176,411	317,339	396,583	396,583
Operating Expenses	557	2070%	12,086	15%	13,946	30,197	53,943	96,594	96,594
Purchased Water	557		12,086		13,946	30,197	53,943	96,594	96,594
Salaries	3,866	651%	29,033	24%	36,127	41,546	47,778	52,556	52,556
Other Operating Expenses	10,157	220%	32,455	71%	55,376	63,682	86,401	125,695	125,695
Depreciation	15,894	301%	63,730	90%	121,135	121,135	140,260	178,510	178,510
Replacement Reserve	0		0		0	0	0	3,000	3,000
Total Expenses	30,474	351%	137,304	65%	226,584	256,560	328,383	456,355	456,355
Net Operating Income	(29,295)	221%	(93,960)	47%	(137,975)	(80,150)	(11,044)	(59,772)	(59,772)
Non-Operating Income and Expenses	99	135%	233	379%	1,115	1,115	1,115	1,115	1,115
Interest on Investments	99		233		1,115	1,115	1,115	1,115	1,115
Other Income and Expenses	0		664,834	410%	3,391,528	0	0	0	0
Total Non-Operating Income & Expenses	99	671685%	665,067	410%	3,392,643	1,115	1,115	1,115	1,115
Add Non-Cash Expenses	15,894	301%	63,730	90%	121,135	121,135	140,260	178,510	178,510
Depreciation and Amortization	15,894		63,730		121,135	121,135	140,260	178,510	178,510
Cash Available for Debt Service	(13,302)	-4872%	634,837	432%	3,375,803	42,100	130,331	119,853	119,853
Debt Service	0		0		0	0	0	0	0
Existing Debt	0		0		0	0	0	0	0
New Fund F KIA Loan	0		0		0	0	0	0	0
Total Debt Service	0		0		0	0	0	0	0
Income After Debt Service	(13,302)		634,837		3,375,803	42,100	117,221	46,978	46,978
Debt Coverage Ratio	N/A		N/A		N/A	N/A	10.34	1.64	1.64

Breathitt County Water District KY 15 South Waterline Project

KY 15 South Pump Station - Operation, Maintenance and Replacement Costs

Given

Electric rates

Monthly Flat fee	\$	45.00
Cost per Kwh	\$	0.050758 per kwh
Demand Factor	\$	6.51000 per kwh

Average flow rate of pump = 130 gpm
 Estimated flow = (232 homes x 70 % x 2.61 p/h x 100 gpcd) =
 Pumping hours/day = (Est flow)/(pump rate x 60) =
 2 ~ 15 HP pumps, 130 gpm, 160' head, 75 % efficiency

42,386 Gals/day
 5.43 hours/day



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Estimated Operation and Maintenance Costs			
Pumping Costs		=	
(2 pumps x 15 HP x one pump operating at a time x 0.75 x pump hrs/day)/motor efficiency =	Kwh/day	76	
(2 pumps x 15 HP x 1/2 x 0.75 x 5.43 hrs/day)/0.8 efficiency =	Kwh/day	76	
	x 365 days/yr =	365	
	=		
	Kwh/yr	27,892	
	Kwh/yr	27,892	
12 months at Flat fee x \$ 45.00 =	\$	540.00	
12 months usage Kwh =	\$	304.55	
Demand Charge - estimated = \$100/mo	\$	27,892	
	x \$ 0.050758 =		
	\$	1,200.00	
Total Pumping Costs =	\$	2,044.55	
Equipment Repair	\$	1,000.00	
Parts and repair	\$	1,000.00	
Oil and lubrication	\$	1,000.00	
Total Equipment and Repair Costs =	\$	2,000.00	
Labor	\$	14,560.00	
one operator @ \$ 40/hr x 7 hrs/week (1 hr/day) x 52 weeks = Total Labor Costs =	\$	14,560.00	
Total Estimated Operation and Maintenance Costs	\$	18,604.55	
Estimated Replacement Costs	\$		
Replacement Costs	\$	15,000.00	
Costs to replace in 12 years	\$	8,000.00	
Costs to replace in 18 years	\$	791	
Annual component = RS(l-n), i = 8.0 %	\$	214	
Pumps	\$	214	
Electrical	\$	8,000.00	
Tank surface prep & painting	\$	22,000.00	
Total Replacement Costs	\$	22,000.00	
	\$	17,000.00	
	\$	1,159	
	\$	454	
Total Estimated Operation, Maintenance and Replacement Costs	\$	21,221.95	
Cost per thousand gallons	\$		
Gallons per day	42,386		
Gallons per year	42,386		
Thousand gallons per year	42.386		
	x	365 days/yr	
=			
		15,471.036	
		15.471	
Total Estimated Operation, Maintenance and Replacement Costs/1000 gallons	\$	1.37	